

Application S/N 09/787328
Amendment and Response dated October 26, 2004
Response to Office Action dated July 26, 2004

Amendments to the Drawings

The attached drawing sheet includes changes to Figures 1-2. In particular, the "-" preceding the position numbers have been removed to avoid confusion.

Attachment: Replacement Sheets

WO00/17351

Inventor: LONG YU Docket No.: 9548.50USWO
 Title: NEW HUMAN HEPATOMA-DERIVED GROWTH FACTOR ENCODING
 SEQUENCE AND POLYPEPTIDE ENCODED BY SUCH DNA SEQUENCE AND
 PRODUCING METHOD THEREOF
 Serial No.: 09/787328
 Replacement Sheet 1 of 4

PCT/CN99/00139

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human HDGF2 Nt - ACCGCTCGTCCGCCCGGGCTTGAGGCCCGCGGGAGCGCGCAATTGTC 50
                                     ||||| |
mouse HDGF Nt - CGCAAAC-TTG 10

human HDGF2 Nt - GGCCCGCGGGGGGGGGCGCTCCCGGCATCTTCGCGCGGACCAAGGACTAC 100
               ||| ||| | ||||| | ||||| | | | |
mouse HDGF Nt - GGCTCGCGC-----TTCCCGGCT-CGGCGCGGAGCCCGG-GGCGCC 49

human HDGF2 Nt - CAGGAAGGGGAGCGGCTGGGATGGCGCG-TCCG-CGGCCCCCGGAGTAC 147
               | | | | | ||||| ||| |||||
mouse HDGF Nt - CG-----CGGCCCGCCA-TGTGCGGATCCAACCGGCAGAAAGAGTAC 91

human HDGF2 Nt - AAAGCGGGCGACCTGGTCTTCGCCAAGATGAAGGGCTACCCGCACTGGCC 197
               || | ||||| || | ||||| || ||||| |||||
mouse HDGF Nt - AAGTGCGGAGACCTGGTGTTTGCGAAGATGAAAGGATACCCCACTGGCC 141

human HDGF2 Nt - GGCCCGGATTGATGAACTCCAGAGGGCGCTGTGAAGCCTCCAGCAAACA 247
               ||||| ||||| | || |||| | ||||| | ||| |||
mouse HDGF Nt - GGCCCGGATTGATGAGATGCCTGAGGCTGCAGTGAAGTCAACAGCCAACA 191

human HDGF2 Nt - AGTATCCTATCTTCTTTTTTGGCACCCATGAAACTGCATTCTAGGTCCC 297
               | | | | |||| ||||| ||||| || ||||| || | |||
mouse HDGF Nt - AATACCAAGTCTTTTTTTTGGGACCCATGAGACGGCATTCTCTGGGCCCC 241

human HDGF2 Nt - AAAGACCTTTTCCATATAAGGAGTAGAAAGACAAGTTTGCAAAGTCAAA 347
               ||||| || | || |||| | || | ||||| || | ||
mouse HDGF Nt - AAAGACCTCTTCGCTTATGAGGAATCCAAGGAGAAGTTTGCAAAGCCCAA 291

human HDGF2 Nt - CAAACGGAAAGGATTTAACGAAGGATTGTGGGAAATAGAAAATAACCCAG 397
               || | ||||| || | || || ||||| || | || |||||
mouse HDGF Nt - CAAGAGGAAAGGGTTCAGCGAGGGGCTGTGGGAGATCGACAACAACCCTA 341

human HDGF2 Nt - GAGTAAAGTTTACTGGCTACCAGGCAATTCAGCAACAGAGCTCTTC-A 444
               ||| ||| ||||| ||||| | ||| || ||||| | | |
mouse HDGF Nt - CAGTCAAGGCCTCTGGCTACCAGTCTCCAGAAAAAGAGTTGTGCGGCA 391

human HDGF2 Nt - GAAAC-----TGAGGGGAGAAGGTGAAATAC----- 470
               || | | ||||| || |||| | | |
mouse HDGF Nt - GAGCCCGAGGTGGAGCCCGAAGCCCATGAGGGTGACGGTGATAAGAAGGG 441

human HDGF2 Nt - ---TGCAGATGCAAGCAGTGAGGAAGAAGG-----TGATAGAGTA--- 507
               ||||| | |||| || ||||| || ||||| || |
mouse HDGF Nt - CAGTGCAGAGGGCAGCAGCGACGAAGAAGGGAAACTGGTGATCGATGAAC 491
  
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Fig. 1

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Title: NEW HUMAN HEPATOMA-DERIVED GROWTH FACTOR ENCODING
SEQUENCE AND POLYPEPTIDE ENCODED BY SUCH DNA SEQUENCES AND
PRODUCING METHOD THEREOF
Serial No.: 09/787328
Replacement Sheet 2 of 4

PCT/CN99/00139

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human HDGF2 Nt - -----CAAGAAGATGGAAAAGGCAA-----AAGAA-AGA-----AT 537
                | | | | | | | | | | | | | | | | | | | | | |
mouse HDGF Nt   - CAGCCAAGGAGAAGAACGAAAAGGGCACGCTGAAGAGGAGAGCAGGGGAT 541

human HDGF2 Nt - G-----AAA-----AAGCAGGCTCAAAAC-----GGA 559
                | | | | | | | | | | | | | | | | | |
mouse HDGF Nt   - GTGTTGGAGGACTCCCCTAAACGTCCCAAGGAGTCAGGAGACCATGAGGA 591

human HDGF2 Nt - AAAAGTCAT-----ATA-----CTT-----CA----- 576
                | | | | | | | | | | | | | | | | | |
mouse HDGF Nt   - GCAGGACAAGGAGATAGCTGCCTTGGAGGGTGAGAGGCACCTGCCTGTAG 641

human HDGF2 Nt - -----AAGAA-ATC-----CTCTAAAC-AGTC-----CCGGAATCT 606
                | | | | | | | | | | | | | | | | | |
mouse HDGF Nt   - AGGTGGAGAAGAACAGCACCCCTCTGAGCCAGACTCTGGCCAGGGACCT 691

human HDGF2 Nt - CCAGGAGATGAAGATGACAAAGA-----CTGCAAAG-AAGAGG--A 644
                | | | | | | | | | | | | | | | | | |
mouse HDGF Nt   - CCTGCAGAGGAAGAAGAGGGAGAGGAAGAGGCTGCCAAGGAAGAGGCTGA 741

human HDGF2 Nt - A-----AA-----CAAA 651
                | | | | | | | | | | | | | | | | | |
mouse HDGF Nt   - AGCCCCAGGCGTCAGAGATCATGAGAGCCTGTAGCCACCAATGTTTCAAG 791

human HDGF2 Nt - AGCAGC-----TCTGAGGG-----TGGAGATGCG 675
                | | | | | | | | | | | | | | | | | |
mouse HDGF Nt   - AGGAGCCCCCTGCCCGTTCTGCTGCTGTCTGGGTGCTACTGGGGAAACT 841

human HDGF2 Nt - GGCAACGACA-CAA-GAA-----ACACAAC- 699
                | | | | | | | | | | | | | | | | | |
mouse HDGF Nt   - GGCCATGGCCTGCAAACCTGGGAACCCCTTCCACCCCTATTACOCCTACTC 891

human HDGF2 Nt - ---TCAG---ACT---TGCAGAAAACC-AGT---GAAG-----GGACCT 730
                | | | | | | | | | | | | | | | | | |
mouse HDGF Nt   - CCTCACTCACTCTCTCCTCTAAGCCCACTCCTGGAGAGTGTCTTGGCCCT 941

human HDGF2 Nt - AACTACCA-----TA-ATGAATGCTG---CATATTAAGAGA-AA 764
                | | | | | | | | | | | | | | | | | |
mouse HDGF Nt   - CACCTCCAGCTCCCTTCTATATACACCTGTGCCCCAGGATGAGATGAG 991

human HDGF2 Nt - CCACAAGAAGGT-TATA---TGTTT---GGTT-----GTCTAA 795
                | | | | | | | | | | | | | | | | | |
mouse HDGF Nt   - GCCTTTGTATCTCTTTTACACTTGTTTCCAGGGTTTCTGCTGGGGTCTAG 1041

human HDGF2 Nt - TAT-----TCTTG-----GA 805
                | | | | | | | | | | | | | | | | | |
mouse HDGF Nt   - GCTGCTGTTTCCACCTCTTGACACCTCTGCCCTGCTGCAGGCATTCTAGA 1091

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Fig. 1 (cont.)

THE NEW HUMAN HEPATOCYTES GROWTH FACTOR ENCODING
SEQUENCE AND POLYPEPTIDE ENCODED BY SUCH DNA SEQUENCE AND
PRODUCING METHOD THEREOF
Serial No.: 09/787328
Replacement Sheet 3 of 4

PCT/CN99/00139

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human HDGF2 Nt  - --TTTG-----ATA-----TGAACCAACACATAG-- 827
                ||||      |||      |||  ||  ||  ||
mouse HDGF Nt   - CCTTTGGGGTGGATAGTGGGCAGGAGTGGAGGTGAAAGAATATAAAGGAG 1141

human HDGF2 Nt  - -----TCCTTGTTCATTGAC-----AGAACC-----CCAG----- 854
                ||  ||  ||  ||  ||  ||  ||  ||  ||  ||
mouse HDGF Nt   - TGTGGGTTTCATGGATGGCATCGTCTACCTGAGCTCTGTCTCCAGCCCCC 1191

human HDGF2 Nt  - -----TTTG-----TATG-----TACATT----- 868
                |||      ||  ||  |||||
mouse HDGF Nt   - ACACTTATTTTCCCATCTGCCTACATTCAAGAAACAGGACACTGTGGGAG 1241

human HDGF2 Nt  - -----ATTCAT--ATTCTCTCTGTGTGTTTCCGG----- 897
                ||  |||  ||  ||  |||||  ||  |||
mouse HDGF Nt   - AGAGGCTACCATCCATOCATAAATCCTTGTTGATTTTTGGGAACACTTAT 1291

human HDGF2 Nt  - -----CGGAA--AAGACATTTTAGC-----CTTT-- 919
                |||  |||  |||  |||  |||
mouse HDGF Nt   - CCCCCTGAOCCAGGGTTCAAGGAATTGTAGTTTAACATCTAGACTTTGG 1341

human HDGF2 Nt  - --TTTAAAAGTT----- 929
                |||  |||||
mouse HDGF Nt   - AGTTTCCAAGTTTGGGCTAGGACCTCGAGGGAGCTAAGAGCTGAAGAAT 1391

human HDGF2 Nt  - --ACTGATTTAATTTC-----TGT-TATTTGGTT-----GCATGAA-- 963
                |||||  ||  ||  ||  ||  ||  ||  ||  ||
mouse HDGF Nt   - CAACTGATTTGCATTGAGGAAATGTCTCTTTAGATCTCAGGGCAGAAATG 1441

human HDGF2 Nt  - -----GTTGCCCTTAACCACT-----AAGGATTAT--C 989
                ||  |||  ||  ||  ||  ||  ||  ||
mouse HDGF Nt   - ATAACCTGGGGAGACCTGCTGCCCTTCATCTACTTCCAAATGCTTGAGGCC 1491

human HDGF2 Nt  - A-----AGATTTTTC-CCAGACTTATA-----CATGTCT- 1018
                |  |||  |||  ||  ||||  ||  ||  ||
mouse HDGF Nt   - AGCCTGTAGTCAGATATTTACCCAGACATAAAGGAAAAGACCATTTTTT 1541

human HDGF2 Nt  - --AGGATC                               1024 (SEQ ID NO: 3)
                ||||
mouse HDGF Nt   - TTAGGAAATGTTTTTAATAAAA 1563 (SEQ ID NO: 9)

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Identity: 68.7%

Fig. 1 (cont.)

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SEQUENCE AND POLYPEPTIDE ENCODED BY SUCH DNA SEQUENCE AND
PRODUCING METHOD THEREOF

PCT/CN99/00139

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Replacement Sheet 4 of 4

human HDGF2	-	MARP-RPREYKAGDLVFAKMKGYPHWPARIDELPEGAYKPPANKYPIFFF	49
mouse HDGF	-	MSRSNRQKEYKCODLVFAKMKGYPHWPARIDEMPEAAVKSTANKYQVFFF	50
human HDGF2	-	GTHETAFLGPKDLFPYKEYKDKFCKSNKRKGFNEGLWEIBNNPGVKFTGY	99
mouse HDGF	-	GTHETAFLGPKDLFPYBESKEKFGKPNKRKGFSEGLWEIBNNPTVKASGY	100
human HDGF2	-	QAIQQQSSS-----ETBEGCGN-----TADASSEBBGDRVEEDGKGKRRKN	139
mouse HDGF	-	QSSQKKSCAAEPVEPEPAHEGDCGDKKSABGSSDBEG-KLVIDEPAKEKN	149
human HDGF2	-	EKAGSKRKKSYTSKKSSKQSRKSPGEDD-----	168
mouse HDGF	-	EKGTLKRRAGDVLEDSKRPKESGDHBEDEKBIAALEGERHLPVEVEKNS	199
human HDGF2	-	-----KDCKEEENKSSSEGGDAGNDTRNTTSDLQKTSEGT	203 (SEQ ID NO: 4)
mouse HDGF	-	TPSEPDSGQGPPAEEBEGEEAAKEEAEPGVVDH-----ESL	237 (SEQ ID NO: 10)

Identity: 53.7%
Similarity: 9.4%

Fig. 2